IN THE UNITED STATES DISTRICT COURT FOR

THE DISTRICT OF MASSACHUSETTS

NUANCE COMMUNICATIONS, INC.,	**Case No. 1:19-cv-11438-PBS**
Plaintiff and Counterclaim Defendant,	
v.	
OMILIA NATURAL LANGUAGE SOLUTIONS, LTD.,	
Defendant and Counterclaim Plaintiff.	

NUANCE COMMUNICATIONS, INC.'S OPPOSITION TO OMILIA NATURAL LANGUAGE SOLUTIONS, LTD.'S MOTION FOR PARTIAL SUMMARY JUDGMENT FOR THE INVALIDITY OF U.S. PATENT 6,999,925

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I.   INTRODUCTION

In yet another effort to evade liability for its infringement of Nuance's valuable IP, Omilia now seeks to invalidate the asserted claims of U.S. Patent No. 6,999,925 (the '925 Patent) under the narrow doctrine of obviousness-type double patenting ("ODP"). In particular, Omilia claims to have found an earlier patent, U.S. Patent No. 6,789,061 (the '061 Patent), that reflects a different invention by IBM scientist Volker Fischer and his team, and has asserted that, under the doctrine of ODP, the claims of the '925 Patent are merely obvious variants of the claims of the '061 Patent.

Omilia's argument strains—and ultimately falls outside—the boundaries and policy rationales of the ODP doctrine. Not only are the two patents not part of the same family, but they are aimed at solving two very different problems in the field of computerized speech recognition. In fact, the specification of the '925 Patent specifically discloses and distinguishes the invention of the '061 Patent (variously referring to the invention of the '061 Patent as "orthogonal[]" to and "considerably different" from the '925 Patent). Furthermore, the Examiner specifically considered the '061 Patent as potential prior art, and nonetheless found patentable the inventions claimed in the '925 Patent. Very little of the claim language between the two patents is the same, and Omilia simply relies on its expert's *ipse dixit* that certain clauses in one patent match up to certain clauses in the other patent, without undertaking the disciplined methodology required by the ODP cases.

In view of these flaws, Omilia's motion fails for three independent reasons.

First, during prosecution of the '925 Patent, the examiner considered the '061 Patent and nonetheless found the claims of the '925 Patent to be patentable. Consequently, Omilia's burden to show invalidity is especially difficult, even beyond the clear and convincing evidence standard.

Second, Omilia's motion fails to undertake a proper ODP analysis. Rather than construe each set of claim terms, identify the differences, then analyze whether those differences are obvious variants (individually and considering the claim as a whole), Omilia merely, and improperly, argues that the language in limitations of one claim is really just the same thing as different language in limitations of the other claim.

Third, the asserted claims of the '925 Patent are quite different from those of the '061

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Patent. Nuance's expert, Chris Schmandt, explains in detail how each specific limitation is very different from the one alleged by Omilia to correspond. Moreover, considering the claims as a whole, which Omilia fails to do, Mr. Schmandt explains why they are very different.

In the alternative, Nuance is permitted to disclaim the short period between the expiration of the full statutory term of the '061 Patent and the '925 Patent to avoid any finding of invalidity. The employment of such a terminal disclaimer under these circumstances is fully consistent with the policy giving rise to the ODP doctrine as well as established case law and PTO practices.

Omilia argues that the doctrine of ODP was created "to prevent situations just like this." DN 209 at 1. Omilia is incorrect. ODP was developed prior to the 1994 TRIPS Agreement from the Uruguay Round of the General Agreement on Tariffs and Trade, when each patent in a family had a 17-year term from issuance, with the consequence that a series of continuations could prolong a patent family's collective term by many decades. The TRIPS Agreement addressed this concern by changing patent terms to 20 years from the priority date for all patents in the family. The ODP doctrine does continue to apply to some cases, but it is not intended to curtail "this" situation, where researchers at IBM were engaged over a period of time in searching for additional ways to make computerized speech recognition better, faster and more accurate. The earlier '061 Patent provided a solution to one problem: cutting down the resources required by a speech recognizer when only a specialized subset of the initial general purpose recognizer is required. Then, several years later, an overlapping team of researchers developed a different solution to a different problem: efficiently adapting and extending a speech recognizer to be more attuned to a particular domain than the general purpose recognizer would be. As such, the '925 Patent represents a different invention, not an improper effort to extend the patent term.

II.   FACTUAL AND PROCEDURAL BACKGROUND

A.   The Patents

The '061 Patent (DN 211-1) issued to IBM on September 7, 2004. It claims priority from European patent application no. 99116684.4, which was filed on August 25, 1999. Taking into

account the 170 days of patent term extension, the '061 Patent would have expired at the end of its full term on January 31, 2021. However, the patentee, IBM, allowed the patent to expire, via nonpayment of maintenance fees, on September 7, 2008. The purpose of the invention claimed in the '061 Patent is to create a special purpose speech recognizer that is "tailored to a certain application and requires reduced resources." 061 Patent, Abstract. It does this by starting with a general-purpose speech recognizer, running a set of specialized training data through the recognizer, determining which "states" or "leaf nodes" get used and which don't, throwing away the unused ones, and ending up with a pared-down speech recognizer that is a subset of, but no better than, the general purpose speech recognizer that was used as a starting point. This focus on requiring reduced resources is also reflected in the language of claim 1: "…such that the second speech recognizer … requires reduced resources compared to the first speech recognizer." '061 Patent cl. 1.

The '925 Patent (DN 211-4) issued to IBM on February 14, 2006. Nuance acquired the '925 Patent from IBM on December 31, 2008, after IBM had allowed the '061 Patent to expire. The purpose of the inventions claimed in the '925 Patent is to create an improved domain-focused speech recognizer by additionally training the general purpose speech recognizer on domain-specific training data.

Specifically distinguishing the invention of the '925 Patent from the "[c]onventional adaptation method[] … [of] select[ing] a domain specific subset from the phonetic context inventory of the general recognizer," the specification explains that the claimed invention supports "the rapid development of new data files for speaker (in-)dependent, specialized speech recognizers having improved initial recognition accuracy, and which require reduced customization efforts …" '925 Patent col. 1:66-2:16. Thus, even though both patents are directed to adaptation of general purpose speech recognizers, they are focused on very different solutions to very different problems. Even more explicitly, the specification identifies the European application (EP 99116684.4) corresponding to the '061 Patent and explains that "[o]rthogonally" to that patent's approach, "the present invention focuses on the re-estimation of phonetic contexts,

or—in other words—the adaptation of the recognizer's sub-word inventory to a special domain."
'925 Patent col. 6:57-7:2. The claimed re-estimation is "considerably different from just 'selecting'
a subset of the general speech recognizer decision network and phonetic contexts" as described in
EP 99116684.4. *Id.* at 7:7-14.[1] The '925 Patent further discusses the EP application and how it
may be used in combination with (not as a species of) the invention of the '925, "to reduce memory
footprints and CPU time." *Id.* at 8:57-63; *see also id.* claim 7. *See* Declaration of Chris Schmandt
in Opposition to Defendant's Motion for Partial Summary Judgment for the Invalidity of the '925
Patent ("Schmandt Decl.") ¶¶ 11-12.

B.   Omilia's Arguments

Omilia argues that '061 Patent claim 6 invalidates '925 Patent claim 1 under ODP.
Although there is very little overlapping claim language, Omilia's expert, Jordan Cohen, broadly
dismisses any differences between these claims, opining that the limitations that he has connected
are, in general, the same. Omilia then argues that '061 Patent claim 15 invalidates '925 Patent
claim 14 under ODP, for the same reasons as the claim 6/claim 1 analysis. Finally, returning to
'061 Patent claim 6, Omilia argues that it also invalidates '925 Patent claim 27 under ODP, further
arguing that the additional limitations of claim 27 are obvious in view of asserted prior art.

III.   LEGAL STANDARD

A.   Obviousness-Type Double Patenting

Obviousness-type double patenting ("ODP") is a judicially-created doctrine intended to
prevent parties from obtaining separate patents on inventions "so alike" that allowing both to stand
would effectively confer two distinct patent terms. *Perricone v. Medicis Pharm. Corp.,* 432 F.3d
1368, 1368–69 (Fed. Cir. 2005). It is "grounded in public policy, [and] prevents the extension of
the term of the original patent via the patenting of an obvious variation. Under [ODP], a patent is

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[1] In a transparent attempt to deflect attention from the '925 Patent's clear distinguishing of the
'061 Patent's invention, Omilia asserts that the key word in the "considerably different" passage
is "just," suggesting that proves the existence of a genus/species relationship. Mot. at 9. This is
inaccurate, for all the reasons Chris Schmandt explains. Schmandt Decl. ¶¶ 63-68, 102.

invalid when it is merely an obvious variation of an invention disclosed and claimed in an earlier patent by the same inventor." *Georgia-Pacific. Corp. v. U.S. Gypsum Co.*, 195 F.3d 1322, 1326 (Fed. Cir. 1999) (citations omitted), *opinion amended on reh'g*, 204 F.3d 1359 (Fed. Cir. 2000).

It was developed as a "check on improper extension of patent rights through the use of divisional and continuation applications prior to the amendment of 35 U.S.C. § 154 to create twenty-year terms running from the date of the earliest related application." *Boehringer Ingelheim Int'l GmbH v. Barr Labs., Inc.*, 592 F.3d 1340, 1346 (Fed. Cir. 2010); *see also In re Fallaux,* 564 F.3d 1313, 1318 (Fed. Cir. 2009) (discussing rationales for ODP rejections for patents issued from applications filed both before and after the amendment of the Patent Act).

"[ODP] bars 'claims in a later patent that are not patentably distinct from claims in a commonly owned earlier patent.' ODP analysis involves two steps. First, a court 'construes the claim[s]' in both patents 'and determines the differences.' Second, a court 'determines whether those differences render the claims patentably distinct.'" *MLC Intellectual Prop., LLC v. Micron Tech., Inc.*, No. 14-CV-03657-SI, 2017 WL 1493025, at *6 (N.D. Cal. Apr. 26, 2017) (quoting *Sun Pharm. Indus., Ltd. v. Eli Lilly & Co.*, 611 F.3d 1381, 1384-85 (Fed. Cir. 2010)); *UCB, Inc. v. Accord Healthcare, Inc.*, 201 F. Supp. 3d 491, 525 (D. Del. 2016), *aff'd*, 890 F.3d 1313 (Fed. Cir. 2018) (same). Obviousness-type double patenting is a question of law based on underlying facts. *Eli Lilly & Co. v. Teva Parenteral Meds., Inc.*, 845 F.3d 1357, 1375 (Fed. Cir. 2017).

At step one of the ODP analysis, the claims must be construed before differences are determined. Claim terms are generally given their "ordinary and customary meaning," which is "the meaning that the term would have to a person of ordinary skill in the art ["POSITA"] in question at the time of the invention." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-1313 (Fed. Cir. 2005) (*en banc*). In assessing how a POSITA would have understood the claim terms, the court looks to "the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art." *Phillips*, 415 F.3d at 1314. "The claim construction inquiry … begins and ends in all cases with the actual words of the claim." *Renishaw PLC v.*

Marposs S.p.A., 158 F.3d 1243, 1248 (Fed. Cir. 1998) (citations omitted). Other asserted or unasserted claims can also aid in determining the claim's meaning, because claim terms are typically used consistently throughout the patent. *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1298 (Fed. Cir. 2014). Differences among the claim terms can also assist in understanding a term's meaning. *Id*. Extrinsic evidence, such as expert opinions, is "'less significant than the intrinsic record in determining the legally operative meaning of claim language.'" *Phillips*, 415 F.3d at 1317. And an expert's conclusory, unsupported assertions as to a term's definition are not helpful to a court. *Id*. at 1318. Consistent with these general claim construction principles, "[a]s a general rule, [ODP] determinations turn on a comparison between a patentee's earlier and later claims, with the earlier patent's written description considered only to the extent necessary to construe its claims." *Eli Lilly & Co. v. Teva Parenteral Meds., Inc.*, 689 F.3d 1368, 1378-79 (Fed. Cir. 2012) (citations omitted). In other words, a determination that there is ODP must be based on the matter actually claimed; reliance on the specification and not the claims is legal error. *In re Hitachi Metals, Ltd.*, 603 F. App'x 976, 978–79 (Fed. Cir. 2015).

Continuing with step one of the ODP analysis, once the claims have been construed, the Court must identify the differences between the earlier, reference, claim and the later claim alleged to be invalid. *MLC*, 2017 WL 1493025, at *6.

Then, at step two, after the differences are identified, the ODP analysis entails determining "whether the differences in subject matter between the claims render the claims patentably distinct." *Amgen Inc. v. F. Hoffman-La Roche Ltd.,* 580 F.3d 1340, 1361 (Fed. Cir. 2009). This requires a determination whether the alleged infringer has proven by clear and convincing evidence that the claims are not patentably distinct. *Eli Lilly & Co. v. Barr Labs., Inc.*, 251 F.3d 955, 962, 968 (Fed. Cir. 2001). "A later patent claim is not patentably distinct from an earlier claim if the later claim is obvious over, or anticipated by, the earlier claim." *Id.*; *Eli Lilly*, 845 F.3d at 1375; *UCB*, 201 F. Supp. 3d at 525. Any differences between the claims cannot be considered in isolation—the claims must be considered as a whole. *Eli Lilly*, 689 F.3d at 1377; *see also Gen. Foods Corp. v. Studiengesellschaft Kohle mbH,* 972 F.2d 1272, 1278 (Fed. Cir. 1992).

B.   Summary Judgment

Under Rule 56, summary judgment may be granted only "if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56. "The burden is on the moving party to show, through the pleadings, discovery and affidavits, that there is no genuine dispute as to any material fact and that the movant is entitled to judgment as a matter of law. … The Court must view the entire record in the light most favorable to the non-moving party and indulge all reasonable inferences in that party's favor." *Amax, Inc. v. ACCO Brands Corp.*, 268 F. Supp. 3d 301, 304 (D. Mass. 2017) (citations omitted). That is, the evidence of the non-movant is to be believed, and all justifiable inferences are to be drawn in its favor. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 255 (1986).

Because a patent is presumed valid (35 U.S.C. § 282), invalidity must be established by clear and convincing evidence. *See Takeda Chem. Indus., Ltd. v. Alphapharm Pty., Ltd.*, 492 F.3d 1350, 1355 (Fed. Cir. 2007); *Otsuka Pharm. Co., Ltd. v. Sandoz, Inc.*, 678 F.3d 1280, 1289–90 (Fed.Cir.2012) (applying this rule to ODP); *Oakley, Inc. v. Sunglass Hut Int'l*, 316 F.3d 1331, 1339 (Fed. Cir. 2003); *see also MLC*, 2017 WL 1493025, at *2; *Zimmer Surgical, Inc. v. Stryker Corp.*, 365 F. Supp. 3d 466, 478–79 (D. Del. 2019). A defendant's burden to prove invalidity is "especially difficult when the prior art [on which it relies] was before the PTO examiner during prosecution of the application." *Hewlett–Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1467 (Fed.Cir.1990). *See also UCB*, 201 F. Supp. 3d at 525.

IV.   OMILIA'S MOTION SHOULD BE DENIED BECAUSE THE ASSERTED CLAIMS OF THE '925 PATENT ARE NOT INVALID FOR ODP.[2]

A.   It is Especially Difficult for Omilia to Prove Invalidity Based on the '061 Patent as Its Equivalent Was Before The PTO

Fully aware that the specification repeatedly discusses—and distinguishes—the European

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[2] In addition to the arguments set forth below, Nuance disputes that Omilia's separate Statement of "Material" Facts (1) reflects all issues of fact for which resolution in Omilia's favor is required for its motion to be granted and (2) sets forth facts that are undisputed. Nuance's identification of material facts in dispute as well as its response to Omilia's separate Statement of Facts is filed concurrently herewith and incorporated herein by reference.

patent application (EP 99116684.4) that led to the '061 Patent, Omilia argues, incorrectly, that the

'061 Patent was not considered by the Examiner.   Mot. at 2 (DN 209).   Not only was EP

99116684.4 addressed at length in the specification, but the Examiner expressly considered the

'061 Patent.   In an October 19, 2004 filing, the Examiner's search strategy and results show the

Examiner specifically searched for "6789061" (the '061 Patent's full number) in the U.S. Patents

database.   Declaration of Carrie Richey in Support of Nuance's Opposition to Omilia's Motion for

Partial Summary Judgment for the Invalidity of '925 Patent ("Richey Decl.," filed herewith) Ex.

1 ('925 Patent file history); *see Molins PLC v. Textron, Inc.*, 48 F.3d 1172 (Fed. Cir. 1995)

(explaining that references are "before the examiner, whether through the examiner's search or the

applicant's disclosure").   Moreover, EP 99116684.4, was cited, incorporated by reference, and

distinguished in the specification of the '925 Patent.   '925 Patent col. 6:57-7:17, 8:61-9:3.   The

'925 Patent specification even identifies key distinctions between the '061 Patent's disclosures

and the invention claimed in the '925 Patent in its discussion of EP 99116684.4.[3]

The burden of demonstrating invalidity by clear and convincing evidence "is 'especially

difficult' when, as is the present case, the infringer attempts to rely on prior art that was before the

patent examiner during prosecution." *Glaxo Grp. Ltd. v. Apotex, Inc.,* 376 F.3d 1339, 1348 (Fed.

Cir. 2004)*; see also Al-Site Corp. v. VSI Int'l, Inc.*, 174 F.3d 1308, 1323 (Fed. Cir. 1999).   This

includes any analysis of ODP. *Bayer Pharma AG v. Watson Labs., Inc.*, 212 F. Supp. 3d 489, 515

(D. Del. 2016).   The reason for that is clear:

> When no prior art other than that which was considered by the PTO examiner is
> relied on by the attacker, he has the added burden of overcoming the deference that

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[3] To the extent Omilia asserts that because the '061 Patent was not specifically considered as an
ODP reference the heightened burden does not apply, this is incorrect.   The case law requires only
that the prior art have been "before the examiner." *Glaxo,* 376 F.3d at 1348.   Here, the examiner
considered the '061 Patent, a patent with common ownership to the '925 Patent, and did not enter
an ODP rejection or a §§ 102/103 rejection.   He is presumed to have done his job in declining to
take such action. *Ultra–Tex Surfaces,* 204 F.3d at 1367.   Moreover, any consideration of the
validity of the '925 Patent in view of the '061 Patent would have implicated an ODP analysis. *See
Otsuka Pharm.,* 678 F.3d at 1297.

is due to a qualified government agency presumed to have properly done its job, which includes one or more examiners who are assumed to have some expertise in interpreting the references and to be familiar from their work with the level of skill in the art and whose duty it is to issue only valid patents.

Ultra–Tex Surfaces, Inc. v. Hill Bros. Chem. Co., 204 F.3d 1360, 1367 (Fed. Cir. 2000). As a consequence, Omilia's burden to demonstrate by clear and convincing evidence that the asserted claims of the '925 Patent are invalid due to ODP is "especially difficult" given the presumption that the Examiner properly did his job in considering the '061 Patent during prosecution of the '925 Patent. Omilia fails to meet this burden.

B.   Omilia's ODP Analysis is Incorrect

As explained above, the ODP analysis involves two steps. First, the court must construe the claims of both patents and determine the differences. *Sun Pharm.*, 611 F.3d at 1384-85. Second, the court must determine whether the identified differences render the claims patentably distinct, applying a standard analogous to the standard for obviousness under Section 103—but considering only the *claims* of the earlier patent. The ODP analysis also requires consideration of the claims as a whole. *See supra* § III.A.

Omilia's motion fails to follow a proper ODP analysis. Both Omilia's motion and the declaration of its expert, Jordan Cohen, compress the analysis for each claim term into a single conclusion of equivalence. In doing so, Omilia has failed to construe the claim language, failed to identify differences between the claims, and failed to address whether those differences are obvious variants of each other. Furthermore, both Omilia and Dr. Cohen completely fail to consider the claim as a whole. For these reasons, Omilia's motion must be denied.

1.   At Step One, Omilia Fails to Construe the Claims.

Omilia's motion suffers several defects at step one. As an initial matter, although Omilia has known about its ODP theory since at least two months before the *Markman* hearing (Richey Decl. Ex. 2 (5/19/20 Omilia correspondence); DN 94 (6/2/20 Motion to Amend Contentions), Omilia failed to inform the Court or Nuance about the additional claim terms that would require construction for this purpose.

Fundamentally dooming its motion, Omilia has failed to proffer constructions of the claim language for either the '061 or '925 Patents. Instead, Dr. Cohen has broadly opined on the equivalence of a number of terms in claim 1 of the '925 Patent to different terms in claim 6 of the '061 Patent.[4] Because the claims use different language, it is necessary to construe that language before determining whether or not there are substantive differences. According to the Cohen declaration, the following terms in claim 1 of the '925 Patent somehow correspond to different language in claim 6 of the '061 Patent (requiring construction before differences or equivalences can be identified): "acoustic model" (DN 210 ¶¶ 47-50, 59); "decision network" (*id.*); "phonetic contexts" (*id.*); "adapted to" (*id.* ¶ 57); "domain" (*id.* ¶¶ 55-56); "re-estimating the first decision network and said corresponding phonetic contexts" (*id.* ¶¶ 58, 60, 62); "second acoustic model" and "second decision network" (*id.* ¶¶ 59, 60); "based on domain-specific training data" (*id.* ¶ 63); "utilize a decision tree" (*id.* ¶ 67, 69); "number of nodes in the second decision network is not fixed by the number of nodes in the first decision network" (*id.* ¶ 71); and "partitioning said training data using said first decision network of said first speech recognizer" (*id.* ¶¶ 72-74). For claim 14 of the '925 Patent, Dr. Cohen postulates, "The 'machine-readable storage medium' limitation of claim 14 of the '925 Patent and the 'apparatus for automatically generating' limitation of claim 15 of the '061 Patent are equivalent" (*id.* ¶ 75), again signaling the need to construe these limitations. Further, Dr. Cohen identifies several additional terms in claim 27 of the '925 Patent as corresponding to language in the '061 patent, thereby also requiring construction: "receiving domain specific training data of a second domain" (*id.* ¶ 81; *see also id.* ¶¶ 55-56); and "wherein the first domain comprises at least a first language, wherein the second domain comprises at least a second language, and wherein the second speech recognizer is a multi-lingual speech recognizer" (*id.* ¶¶ 82-94).[5] Since Omilia has not met its burden to proffer constructions, Mr. Schmandt has

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[4] Omilia's argument is based on claim 6 of the '061 Patent. Because claim 6 is a dependent claim, Omilia's argument requires an analysis of all of the limitations in claims 1, 2, 4, 5 and 6.

[5] During claim construction, the Court construed "second language" and "multi-lingual speech recognizer" in this limitation (DN 157); however, Omilia's argument here does not rely on those

addressed the claim terms as a POSITA would understand them. Schmandt Decl. ¶¶ 71-75; *see generally id.* ¶¶ 76-130.

Furthermore, according to Dr. Cohen, the following additional terms in claim 6 of the '061 Patent are the terms to which language in claim 1 of the '925 Patent allegedly corresponds, meaning that these terms must also be construed: "set of states" (DN 210 ¶¶ 51-53, 61, 64-66, 68, 69); "set of probability density functions" (*id.* ¶ 51); "distinctive of" (*id.* ¶ 57); "application" (*id.* ¶¶ 55-56); "selecting a subset of states" (*id.* ¶¶ 59, 61, 62, 71); "exploits application specific training data" (*id.* ¶ 63); and "associating a multitude of speech frames of the training data with the correct states of the first speech recognizer" (*id.* ¶¶ 72-74). *See* Schmandt Decl. ¶¶ 76-130.

This list of claim terms requiring construction is far greater than the four terms the Court permitted in its Scheduling Order. (DN 55). Moreover, other than as noted *supra* in footnote 4, none of the terms for the '925 Patent are among the four terms Omilia asked the Court to construe during the *Markman* process.

Nowhere has Dr. Cohen indicated he understands how patent claims are to be construed, nor has he offered actual constructions. This is fatal to Omilia's summary judgment motion and warrants striking his opinions. *MLC Intellectual Prop., LLC v. Micron Tech., Inc.*, No. 14-CV-03657-SI, 2016 WL 4192009, at *4 (N.D. Cal. Aug. 9, 2016) (where defendant argued differences in claim language were "merely linguistic differences" without proper construction, summary judgment denied for failure to show the challenged claims are invalid).

Unless the Court denies Omilia's summary judgment motion for failing to carry its initial burden of persuasion, it must construe these terms before ruling on the merits of Omilia's motion. *See, e.g., MyMail LTD. v. ooVoo, LLC, IAC Search & Media, Inc.*, Case Nos. 18-1758, -1759 (Fed. Cir. Aug. 16, 2019) (court erred by failing to construe claims prior to ruling on §101 motion); *Eon Corp. IP Holdings v. Silver Spring Networks, Inc.*, 815 F.3d 1314, 1318 (Fed. Cir. 2016)

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constructions. To the contrary, Dr. Cohen's analysis *violates* this construction by equating a dialect with a "language" as construed. Cohen Decl. ¶ 87; Schmandt Decl. ¶¶ 148, 157.

(alterations omitted) ("When the parties present a fundamental dispute regarding the scope of a claim term, it is the court's duty to resolve it.").

2.   Having Failed to Construe the Claims, Omilia Fails to Consider the Differences Between the Claims That Must Be Analyzed at Step Two.

Because Omilia has failed to construe the claims, and because Dr. Cohen has opined that the different language used in the two claims uniformly refers to the same things, Omilia has failed to identify any differences between the claims. Consequently, Omilia has left nothing to analyze at ODP step two: whether the differences between the claims are obvious variants of each other. Given the profound absence of common terminology between the claims of the two patents, and in view of the extensive explanations provided by Mr. Schmandt at ¶¶ 76-130, such a conclusion is simply implausible, and wrong.[6]

Because Dr. Cohen repeatedly concludes that the claim terms in the two patents are "the same" (*e.g.,* DN 210 ¶¶ 47, 48, 56, 59, 62, 64), that one term "corresponds" to the other (*e.g.,* DN 210 ¶ 53, 69), or that differences in wording are "semantics and nothing more" (*e.g.,* DN 210 ¶¶ 57, 63), it appears the lone difference he has identified is the final limitation of '925 Patent claim 27. And this limitation is not merely a "difference" between the claims; it is a limitation found in claim 27 that not even Dr. Cohen was able to match up with some language from '061 Patent claim 6. Instead, Omilia invokes prior art in a misguided effort to simply erase the limitation.

Contrary to Dr. Cohen's gloss over the subject, Dr. Schmandt explains that there are many substantive differences between the claims, and as discussed below. Schmandt Decl. ¶¶ 76-130

3.   Omilia Further Fails to Compare the Claims as a Whole.

Finally, in addition to the two-step process for considering differences in the claim limitations, the ODP doctrine also requires a comparison of the claims as a whole. Omilia utterly

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[6] In the alternative, Omilia may argue that its analysis—based on equating the (unconstrued) claim language—is entirely performed at step two as a comparison of the differences. If this is how Omilia's argument is to be interpreted, then it has failed entirely to address ODP step one. Either way, the argument fails in substance, as explained in more detail below.

fails to undertake this step—most conspicuously by simply ignoring the claim limitations that it wasn't able to "match up" with limitations from the other patent. *See generally* Schmandt Decl. ¶¶ 73 (chart), 140.

To the extent Omilia may argue that it and Dr. Cohen have offered background explanations about the general subject matter of the patents based on the specifications, *see, e.g.*, Cohen ¶¶ 47, 48, 51 (discussing what the '061 Patent "describes" and "recognizes" that is typical of speech recognizers), this is *not* a comparison of the *claims* at all, and therefore fails to satisfy this requirement. Indeed, following the methodology suggested in Omilia's papers, every patent covering an improvement on speech recognition would be invalid as all covering the same general subject matter. Because Omilia has failed to employ a proper analysis, its motion should be denied.

C.   **The Asserted Claims of the '925 Patent are Patentably Distinct from the Claims of the '061 Patent**

While the Court can simply deny Omilia's motion based on its failure to engage in a proper ODP analysis (discussed above), Omilia's substantive analysis is also wrong. The claims—both on a limitation-by-limitation basis and as a whole—cover fundamentally different subject matter. The '061 Patent is not merely a "species" of the "genus" claimed in the '925 Patent. These two patents are directed to solving different problems using different techniques. Schmandt Decl. ¶¶ 4-14. Because they are both directed to the technology of computerized speech recognition, it is unsurprising that they both include references to speech recognizers and certain components of those recognizers, but this superficial similarity does not make them patentably indistinct. As explained in more detail below, the identified claim terms are not "the same," and the wording differences are not "merely semantic." Instead, the claims are fundamentally different, and the '925 Patent limitations are not obvious variants of the '061 Patent limitations.

1.   **'925 Patent Claim 1 is Patentably Distinct from '061 Patent Claim 6.**

Numerous differences exist between reference claim 6 from the '061 Patent and claim 1 of the '925 Patent. When properly accounting for these differences, it is clear that claim 1 is patentably distinct from claim 6. Omilia's brief merely jumps around, skipping back and forth

between the specifications of both patents, the claim language, and Dr. Cohen's discussion of the background technology (*i.e.*, citations to Cohen Decl. ¶¶ 33-43). Mot. at 11-15. This does <u>not</u> constitute the required construction of the claim terms and comparison of the <u>claim language</u>, as required for ODP. At the end of all of its hand-waving, Omilia concludes, "the differences in the claims are semantics." *Id.* at 15. Nothing could be farther from the truth. *See* Schmandt Decl. ¶¶ 4-14, 40-68, 76-130. Omilia has utterly failed to meet its burden on summary judgment, and its motion should be denied as to Claim 1 of the '925 Patent. For convenience, the particular limitations are organized according to the portion of Schmandt's declaration that addresses them, and cross-cites to the relevant portion of Cohen's declaration.

Schmandt Decl. § VIII.B.1. First, claim 1's "decision network" is very different from claim 6's "set of states" and "set of probability density functions" (PDFs). This distinction is more fundamental than a difference between "functional structures" and "mathematical elements," as Omilia asserts. *See* Mot. at 12. Omilia's superficial analysis would essentially lead to the conclusion that all speech recognizers are the same. Schmandt Decl. ¶ 90. Rather, as Schmandt explains at length, the elements of claim 6 "describe components which actively perform speech recognition" while claim 1 discloses a technique to build a recognizer. Schmandt Decl. ¶¶ 84-85; *see generally id.* ¶¶ 80-98. Furthermore, fatal to Omilia's theory, non-asserted claim 7 of the '925 Patent includes precisely the same claim wording as Omilia relies on from the '061 Patent: "set of states" and "set of probability-density functions." Under the principles of claim differentiation and interpreting different claim terms to have different meanings, *Phillips*, 415 F.3d at 1314, Omilia's theory is impermissible as a matter of law. *See also* Schmandt Decl. ¶¶ 108, 112. Further, a POSITA understands that "nodes" of a decision tree are not a "set of states" and it is well understood that "nodes" do not have PDFs. Schmandt Decl. ¶¶ 94–95 (For ease of reference, this limitation is in blue font in the experts' claim charts and is discussed at Cohen Decl. ¶¶ 47-53 (§VIII.C.2) and Schmandt Decl. ¶¶ 80-98 (§VIII.B.1)).

Schmandt Decl. § VIII.B.2. Second, claim 1's generating "by re-estimating" step is very different from claim 6's generating "by selecting a subset of states" and "by selecting a subset of

probability density functions" steps. Both patents expressly distinguish these concepts. The '925 Patent specification describes and distinguishes other systems, including EP 99116684.4, the '061 Patent's parent application. The '925 Patent describes EP 99116684.4, then distinguishes the two approaches, calling them "[o]rthogonal[]" and "considerably different." Col. 6:57-7:17; *see* Schmandt Decl. ¶ 102.   During prosecution of the '061 Patent, the applicant stated, "Reestimating is <u>not synonymous</u> to pruning … Instead, reestimation is a separate and distinct function that can be performed to improve the recognition accuracy caused by pruning …" Schmandt Decl. Ex. B ('061 File History, December 24, 2003 Response to Office Action at 6 (emphasis in original)); *see also* Schmandt Decl. ¶ 105.   Thus, the '925 Patent specification cannot be construed as encompassing prior art processes that merely add, select, deselect a node without re-estimating or recalculating the decision network and its corresponding phonetic contexts. *See Kinik Co. v. Int'l Trade Comm'n*, 362 F.3d 1359, 1365 (Fed. Cir. 2004). Again, '925 Patent claim 7 claims "selecting a subset" of both states and PDFs, further establishing that the language of claim 1 means something different. Schmandt Decl. ¶¶ 108, 112. *See generally* Schmandt Decl. ¶¶ 99-108 (For ease of reference, this limitation is in green font in the experts' claim charts and is discussed at Cohen Decl. ¶¶ 58-62 (§VIII.C.4) and Schmandt Decl. ¶¶ 99-108 (§VIII.B.2)).

Schmandt Decl. § VIII.B.3. Third, the way in which claim 1 uses of domain-specific training data is very different from the way in which claim 6 exploits application specific training data. In particular, the training data used by the '925 Patent is primarily phonetic labeling of speech frames, while the training data used by the '061 Patent is the actual acoustic contents of those frames. Schmandt Decl. ¶ 110. *See generally* Schmandt ¶¶ 109-112 (For ease of reference, this limitation is in purple font in the experts' claim charts and is discussed at Cohen Decl. ¶ 63 (§VIII.C.5) and Schmandt Decl. ¶¶ 109-112 (§VIII.B.3)).

Schmandt Decl. § VIII.B.4. Fourth, the "phonetic decision tree" of claim 1 is fundamentally different from the "set of states" and "set of probability density functions" in claim 6, and the latter is not merely a species of the former. As Schmandt explains, Cohen has committed a logical fallacy of concluding that because the "set of states" is *derived from* a decision network,

it *is* the decision network. Schmandt Decl. ¶ 113. Moreover, the '061 Patent describes a decision tree and does not equate it with the claimed set of states, as Dr. Cohen opines. Similarly, the '925 Patent describes a set of states and a set of PDFs, and does not equate those with the claimed decision tree, as Dr. Cohen opines. *See* Schmandt Decl. ¶¶ 120-121. Nor does the "bootstrap" procedure cited by Dr. Cohen support his conclusion. Schmandt Decl. ¶ 114. *See generally id.* ¶¶ 113-122 (For ease of reference, this limitation is also in blue font in the experts' claim charts and is discussed at Cohen Decl. ¶¶ 64-70 (§VIII.C.6) and Schmandt Decl. ¶¶ 113-122 (§VIII.B.4)).

Schmandt Decl. § VIII.B.5. Fifth, the limitation in claim 1 that the number of nodes in the second decision network is "not fixed by" the number of nodes in the first decision network is different from claim 6's generating "by selecting a subset of states" and "by selecting a subset of probability density functions" steps—which Omilia also relies on to match up to the generating "by re-estimating" step, discussed above. In further equating this limitation with a limitation from claim 6 that it had already matched up to a different limitation from claim 1, Omilia contradicts itself. Earlier, it equated the '061 Patent's "set of states" with the decision network as a whole. Here, it inconsistently and incorrectly equates those same states with "nodes" within the network. Schmandt Decl. ¶ 124. Leveraging off this error, Omilia argues that because the "pruning" of the '061 Patent results in fewer terminal (leaf) nodes this also satisfies the '925 Patent's "not fixed by" language. But this, again, ignores the fundamental differences between re-estimating and selecting a subset of states and PDFs. *See generally* Schmandt Decl. ¶¶ 123-126 (For ease of reference, this limitation is also in green font in the experts' claim charts and is discussed at Cohen Decl. ¶ 71 (§VIII.C.7) and Schmandt Decl. ¶¶ 123-126 (§VIII.B.5)).

Schmandt Decl. § VIII.B.6. Sixth, claim 1's "partitioning said training data" as part of re-estimating is very different from claim 6's "associating a multitude of speech frames … with the correct states of the speech recognizer" in connection with selecting a subset of states. As an initial matter, Omilia ignores the second half of the claim 6 limitation, which is critically important to understanding the differences: "…and selecting those states with a frequency of occurrence above a threshold as the subset of states." '061 Patent claim 6; Schmandt Decl. ¶ 130. As Mr. Schmandt

explains, claim 6's "associating a multitude of speech frames" is done in connection with the speech recognition process to identify which Hidden Markov Model states in the general-purpose recognizer are unused by the training data (*see* '061 Patent col. 6:12-15); by contrast, the "partitioning" in claim 1 consists of separating out each frame's feature vector and phonetically labeling it ('925 Patent col. 4:35-46). *See generally* Schmandt Decl. ¶¶ 127-130 (For ease of reference, this limitation is in pink font in the experts' claim charts and is discussed at Cohen Decl. ¶¶ 72-74 (§VIII.C.8) and Schmandt Decl. ¶¶ 127-130 (§VIII.B.6)).

Finally, Omilia fails to compare the claims as a whole, and thus completely ignores several significant limitations in '061 Patent claim 6, including a requirement of reduced resources (col. 9:54-55); re-estimating acoustic model parameters (col. 9:56-61), exploiting phonetical knowledge of the particular application (col. 10:6-9), and selecting as a subset of states those with a frequency of occurrence above a threshold (col. 10:17-18). These additional limitations further emphasize the significant differences between these claims. *See* Schmandt Decl. ¶ 140.

Each of these differences is independently sufficient to warrant denial of Omilia's motion.

2.   '925 Patent Claim 14 is Patentably Distinct from '061 Patent Claim 15.

Omilia also argues that '925 Patent claim 14 is invalid due to ODP over '061 Patent claim 15. The technical terms of these claims are the same, so Nuance incorporates its arguments above; for those reasons, Omilia's motion must also be denied as to claim 14. *See* Schmandt Decl. ¶ 141.

Additionally, '925 Patent claim 14 claims a "machine readable storage, having stored thereon a computer program" capable of performing the claimed steps. But '061 Patent claim 15 is an apparatus claim, expressly requiring "at least one processor" operative to perform the claimed steps. This is a material difference, and precludes a finding of ODP. *See Worlds, Inc. v. Activision Blizzard, Inc.*, No. 12-10576-DJC, 2015 WL 3932369, *15 (D. Mass., June 26, 2015) (construing claims with "processor" and "software program" differently). Omilia's citation to *In re Lonardo*, 119 F.3d 960, 968 (Fed. Cir. 1997) is off point. It finds equivalence between a claimed device and a method of using that device, and is irrelevant to Omilia's equation of a computer program with

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an apparatus with a processor. To the extent Omilia relies on Dr. Cohen's declaration concerning this difference, his unsupported statement is an improper legal conclusion on a matter of pure claim construction. *See* Schmandt Decl. ¶ 142.

> **3.   '925 Patent Claim 27 is Patentably Distinct from '061 Patent Claim 6.**

Omilia also argues that '925 Patent claim 27 is similarly invalid under ODP based on '061 Patent claim 6, for mostly the same reasons. Nuance incorporates its arguments above; for all of the reasons identified above, Omilia's motion must also be denied as to claim 27.

Omilia does raise two additional arguments. First, Omilia (via Dr. Cohen) argues that "domain-specific training data" in claim 27 is the same as "application specific training data" in claim 6. Given the differences in how the two patents *use* the training data, this, too, is a difference between the claims. *See* Schmandt Decl. ¶ 145.

Second, faced with the fact that there is *nothing* in '061 Patent claim 6 to which Omilia can "match up" the final two limitations of '925 Patent claim 27 ("wherein the first domain comprises at least a first language, wherein the second domain comprises at least a second language, and wherein the second speech recognizer is a multi-lingual speech recognizer"), Omilia turns to the prior art. Omilia does not cite to this prior art to show how a particular term would be understood by a POSITA. Instead, it constitutes a recognition that these limitations are simply absent in the reference claim. Whether this is characterized as an effort to justify an argument within the ODP doctrine that there are no differences between this limitation in claim 27 and "{nothing}" in claim 6, or is instead an effort to augment the ODP analysis with a Section 103 obviousness combination, the conclusion is the same: Omilia's argument is legally improper and should be denied.

Omilia's argument is also technically incorrect. As Schmandt explains, Cohen fails to map several Schultz papers (at least one of which was considered by the examiner and is cited on the face of the '925 Patent) to the claims. Schmandt Decl. ¶¶ 153, 156. Similarly, Omilia's effort to combine '061 Patent claim 6 with Sabourin and/or the third Schultz reference is incorrect. Sabourin uses a different technique, MAP adaptation, which the '925 Patent expressly teaches

away from. Schmandt Decl. ¶ 165. Schultz is similarly off-point. *Id.* ¶ 170. *See id*. ¶¶ 161-171. The mere fact that multi-lingual speech recognizers are alleged to have existed in the prior art does not invalidate claim 27, nor does it justify ignoring limitations to that effect in an ODP analysis.

Furthermore, Omilia's argument specifically contradicts this Court's claim construction of "second language" and "multi-lingual." DN 157 at 10-14, 22. Omilia argues that the '061 Patent's disclosure of "pruning" a general purpose German language recognizer to cover only the Austrian dialect of German constitutes a disclosure of a "second language." Mot. at 19. But this specifically contradicts Omilia's own position during claim construction (DN 83 at 14; Richey Decl. Ex. 3 (7-10-20 Tr. p.30)), and is an incorrect interpretation of the claims (Schmandt Decl. ¶¶ 147-150, 157).

> **D.   In the Alternative, Any Obviousness-Type Double Patenting in the '925 Patent in View of the '061 Patent Can Be Cured by Terminal Disclaimer**

Even were the Court to conclude the '925 Patent reflects ODP with respect to the claims of the '061 Patent, a finding of invalidity can be avoided via a terminal disclaimer. *Geneva Pharms., Inc. v. GlaxoSmithKline PLC*, 349 F.3d 1373, 1378 (Fed. Cir. 2003). This is true "during litigation, [and] even after a finding that the challenged patent is invalid for [ODP]." *Perricone*, 432 F.3d at 1375; *see also Boehringer*, 592 F.3d at 1347. Omilia claims this election is not available to Nuance here based on the early termination of the '061 Patent due to nonpayment of fees and lack of common ownership. Both arguments fail.

> **1.   The Full Statutory Term of the '061 Patent Has Not Yet Expired.**

The policy rationale for the ODP doctrine is inextricably tied to the circumstances under which terminal disclaimers are permitted as a cure. "The fundamental reason for the rule [of ODP] is *to prevent unjustified timewise extension of the right to exclude* granted by a patent." *In re Van Ornum,* 686 F.2d 937, 943–44 (C.C.P.A. 1982); *see also Lonardo,* 119 F.3d at 965 (same).

Omilia simply postulates that the '061 Patent has expired and therefore no terminal disclaimer is available. Mot. at 6-7. This is wishful thinking. A terminal disclaimer is indexed to the statutory term (here, January 31, 2021), not to premature expiration due to nonpayment of fees. *See Pharmacia Corp. v. Par Pharm., Inc.*, 417 F.3d 1369, 1374 (Fed. Cir. 2005). The Court of

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Federal Claims considered the situation of an expired reference patent based on failure to pay fees:

> To avoid such double-patenting, [patentee] needed to disclaim only the portion of the [later patent's] term that would have exceeded the statutory term of its prior patents—it did not need to make the term of the [later patent] strictly dependent upon whether maintenance fees were paid on the [prior] patents.

Boeing Co. v. United States, 69 Fed. Cl. 397 (Fed. Cl. 2006). *See also Hoffmann-La Roche Inc. v. Orchid Chems. & Pharms. Ltd.*, No. CIV.A. 10-4540 SRC, 2011 WL 4433575, at *3 (D.N.J. Mar. 17, 2011) (following *Boeing*). The language of the applicable form disclaimer confirms this exclusion. Richey Decl. Ex. 4 (MPEP § 1490 (Form PTO/SB/26a)). Omilia's suggestion that terminal disclaimer is not available due to the expiration of the '061 Patent, therefore, fails.

2. The '061 and '925 Patents Were Commonly Owned at All Relevant Times.

Omilia's assertion that a terminal disclaimer is not available based on a lack of common ownership is similarly misguided. Mot. at 6-7. Omilia's own case law explains that a secondary goal of ODP is to "prevent multiple infringement suits by different assignees asserting essentially the same patented invention." *In re Hubbell*, 709 F.3d 1140, 1145 (Fed. Cir. 2013). A terminal disclaimer alleviates the possibility of such "harassment" by requiring common ownership of the patents at issue. *Id.*; *see also Aloft Media, LLC v. Microsoft Corp.*, No. 6:08-CV-51, 2009 WL 10677617, at *2 (E.D. Tex. Aug. 6, 2009); *In re Fallaux,* 564 F.3d at 1319.

Omilia's claim that the '925 and '061 Patents are not commonly owned ignores that the facts here fully serve the policy of the common ownership requirement and thus permit terminal disclaimer. While the '061 Patent was in effect, both patents were commonly owned by IBM. Nuance only acquired the '925 Patent (in 2009) after IBM had allowed the '061 Patent to expire (in 2008). Thus, there is no time during the life of the '061 and '925 Patents at which any risk existed of harassment via multiple infringement suits by different assignees.

V.   CONCLUSION

For the foregoing reasons, Omilia's motion for partial summary judgment of invalidity of the asserted claims of the '925 Patent due to ODP should be denied.

Date: January 7, 2021   Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that this document will be filed through the ECF system and will be sent electronically to the registered participants as identified on the Notice of Electronic Filing (NEF) and paper copies will be sent to those indicated as non-registered participants on January 7, 2021.

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